



PLANTS OF NEW SOUTH WALES, ILLUSTRATED.

PART IX.

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(Plates XXII.-XXV.)

ACACIA GLADIIFORMIS, A. Cunn., B. Fl. ii. 365.

(Plate XXII.)

Hab.—George's River, near Campbelltown (J. C. Darley); near Bathurst (W. J. C. Ross); Warrumbungle Ranges (S. Lyndon); Rylstone (R. T. Baker).

The predominating shape of the phyllodia is almost spatulate, and curved as delineated in the figure, the linear lanceolate form mentioned by Bentham being rarely met with, and the glands are more often 3 or 4 than 2 or under.

The rhachis is generally about one-half the length of the phyllodia.

The specimens from the different localities given above show no recognisable variation whatever, those from Coonabarabran being in every respect identical with those from George's River, a difference in latitude of about 300 miles. It is one of the few species of this genus, as far as I am aware, that is without appreciable variation. The phyllodia somewhat resemble the narrower ones of *A. notabilis*, F.v.M., a species which I hope at some future time to show is the desert variety of *A. penninervis*, Sieb.

A. OBTUSATA, Sieb. B. Fl. ii. 366.

(Plate XXIII.)

The following is an amended description :—A tall shrub, quite glabrous, branchlets angular. Phyllodia *exceedingly variable in length and shape, from 1 to 4 inches long, and from 1 to 6 lines broad, narrow-lanceolate or oblanceolate, spathulate, much narrowed towards the base, straight or slightly falcate, very obtuse or almost acute, gland mostly present below the middle on the upper margin ; 1-nerved, the nerve closer to the upper than the lower margin, margins thickened nerve-like, veinlets inconspicuous. Racemes about half as long as the phyllodes, with from six to twelve heads of flowers, mostly 5-merous, under 30 flowers in each head. Calyx turbinate, sepals thick, obtuse, spathulate, ciliate, half or $\frac{2}{3}$ as long as the corolla, at first united but readily separating when fully out. Petals glabrous, often ribbed. Pistil glabrous. Pod flat, almost always straight, with only the slightest tendency to curve, glabrous, margins thickened and parallel, 3 to 4 inches long and 5 lines broad, impress of the seed prominent on the outside. Seed oblong, longitudinal, funicle filiform to the one small fold and then thickened into a small boat-shaped axil under the seed.*

Hab.—Blue Mountains ; Barber's Creek (H. Rumsay) ; and southern coast range to Victoria.

This species was described early in this century from flowering specimens only, and as in the case of many other Acacias, the pods and seeds have only been collected within the last few years. As will be seen above and in the plate, the essential parts hitherto wanting in this particular species are here recorded for the first time ; and in addition there is figured a series showing the extreme variability of the phyllodes and also other important parts necessary for comparison with its congeners.

It will also be noted that the descriptions here given of some of the parts differ from those of previous authors, but the differences, although important, and the result of an examination of a large number of specimens, are yet in themselves, I think, not sufficient to justify the recognition of any new varieties.

The number of flowers in the head was always below 30 in the material examined, although Bentham gives the number above 30. The gland is also hardly ever wanting.

A. RUBIDA, A. Cunn. B. Fl. ii. 366.

(Plate XXIV.)

Bentham's description in the Flora may be supplemented as follows:—

Sepals smooth or with a few scattered hairs, half as long as the petals, usually coherent. Petals smooth or with a few scattered hairs, sometimes slightly ribbed.

Pod 4 to 5 inches long and ¼ lines broad, slightly curved or straight, valves thinly coriaceous.

Seeds longitudinal, oblong; funicle slightly or not at all enlarged under the seed, encircling it in a double fold, and occupying the space between the seed and the margins of the valves.

Hab.—Thornleigh, near Sydney (W. W. Froggatt); Blue Mountains (Sieber); Hill Top, Southern Line (J. H. Maiden); Queanbeyan (Forester Harris).

The fruits of this species are now recorded for the first time. This species is very rarely found in fruit, and plants of it have been under observation for years without finding any traces of a pod. I experienced great difficulty in finding satisfactory pistils in the numerous flowers examined under the microscope, so perhaps they may often be abortive—hence the absence of fruit.

Bentham, in his description of this species (B. Fl. ii. 366), states that it is "allied to *A. amoena* and perhaps a variety."

As the pod was unknown to him, he probably based the remark on a resemblance of the flowers and phyllodia of the two species to each other, but if his account of the funicle of *A. amoena* is correct, then the two are distinct species, for the funicle in this case does not surround the seed in a triple fold.

It is very noticeable how the phyllodia and branchlets turn a bright red colour when pressed.

A. TRIPTERA, Benth. B. Fl. ii. 323, var. LYNDONI, R.T.B.

(Plate xxv.)

A tall, dense shrub with long pendent branches, glabrous. Phyllodia numerous, decurrent on the stem, rigid, inclined to erect or running out obliquely from the stem, not recurved as in the type, almost triangular in shape; the upper edge curving upwards to the pungent point, sometimes obliquely lanceolate when in fruit, 1 to 2 inches long, about 6 lines broad, striate with several prominent nerves, without any marginal gland. Peduncles solitary or 2 together, mostly at the ends of the branches, each bearing a cylindrical spike of $\frac{3}{4}$ inch. Flowers not crowded, fairly large, 4-merous. Calyx smooth, short, broadly lobed. Petals smooth, separating when fully in flower. Pod curved, 3 to 4 inches long, 2 lines broad, valves coriaceous, contracted between the seeds. Seeds longitudinal, funicle folded 3 or 4 times upon itself, slightly thickened under the seed.

Hab.—Round Mountain, Coonabarabran (S. Lyndon).

This variety is very distinct from the type as described by Bentham and figured by Baron von Mueller (Ic. Au. Ac. ix.) The phyllodia have quite a characteristic shape, there being an absence of the recurved-falcate form mentioned by Bentham. They are also broader and thicker, and the flowers are larger than specimens from the interior. When placed for comparison in juxtaposition with the type, its characters stand out as very marked, but still there is no distinctive feature either in the pod or flower, sufficient to warrant its being raised to specific rank.

A complete set of specimens was collected by the late Mr. S. Lyndon, B.A.

EXPLANATION OF PLATES.

Plate xxii.

A. gladiiformis, A. Cunn.

- Fig. 1.—Flowering twig.
 Fig. 2.—Flower (enlarged).
 Fig. 3.—Pistil ,,
 Fig. 4.—Pod.
 Fig. 5.—Seed showing funicle (enlarged).

Plate XXIII.

A. obtusata, Sieb.

- Fig. 1.—Typical flowering twig.
 Fig. 2.—Flowering twig of variety with small phyllodes.
 Figs. 3, 4, 5.—Phyllodia.
 Fig. 6.—Bud (enlarged).
 Fig. 7.—Expanded flower (enlarged).
 Fig. 8.—Pistil (enlarged).
 Fig. 9.—Pod.
 Fig. 10.—Portion of valve showing seed *in situ*.

Plate XXIV.

A. rubida, A. Cunn.

- Fig. 1.—Flowering twig.
 Fig. 2.—Bud (enlarged).
 Fig. 3.—Expanded flower (enlarged).
 Fig. 4.—Pistil (enlarged).
 Fig. 5.—Pod ,,
 Fig. 6.—Seed ,,

Plate XXV.

A. triptera, Benth. var. *Lyuloni*, R.T.B.

- Fig. 1.—Flowering twig.
 Fig. 2.—Expanded flower (enlarged).
 Fig. 3.—Pistil.
 Fig. 4.—Pod and phyllode (nat. size.)
 Fig. 5.—Seed.